



State of Utah

Department of  
Environmental Quality

Dianne R. Nielson, Ph.D.  
*Executive Director*

DIVISION OF AIR QUALITY  
Richard W. Sprott  
*Director*

JON M. HUNTSMAN, JR.  
*Governor*

GARY HERBERT  
*Lieutenant Governor*

DAQE-IN0121176-06

September 18, 2006

Bob James  
Hill Air Force Base  
OO-ALCM/EMC  
7276 Wardleigh Road  
Hill Air Force Base, Utah 84056

Dear Mr. James:

Re: Intent to Approve: Modification to DAQE-AN0121152 Consolidation of Hill Air Force Boilers,  
Davis County – CDS A; NOX and CO Major PSD; NESHAPS; NSPS; HAPs; TITLE V MAJOR  
Project Code: N0121-176

The attached document is the Intent to Approve (ITA) for the above-referenced project. ITAs are subject to public review. Any comments received shall be considered before an Approval Order is issued.

Future correspondence on this Intent to Approve should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. Please direct any technical questions you may have on this project to Mr. Tad Anderson. He may be reached at (801) 536-4456.

Sincerely,

Rusty Ruby, Manager  
New Source Review Section

RR:TA:kw

cc: Davis County Health Department

Mike Owens, EPA Region VIII

**STATE OF UTAH**

**Department of Environmental Quality**

**Division of Air Quality**

**INTENT TO APPROVE: Modification to  
DAQE-AN0121152 Consolidation of Hill  
Air Force Boilers**

**Prepared By: Tad Anderson, Engineer  
(801) 536-4456  
Email: tdanderson@utah.gov**

**INTENT TO APPROVE NUMBER**

**DAQE-IN0121176-06**

**Date: September 18, 2006**

**Hill Air Force Base**

**Source Contact  
Glenn Palmer  
(801) 775-6918**

**Richard W. Sprott  
Executive Secretary  
Utah Air Quality Board**

### ***Abstract***

***Hill Air Force Base (HAFB) has requested to remove Monitoring, Recordkeeping and Reporting from the existing Consolidation Boilers permit (DAQE-AN0121152-04). This consolidation permit includes all the boilers (including listing grandfathered) located on Main base and Little Mountain. Some boilers will be subject to New Source Performance Standards 40 CFR 60.40Dc (Subpart Dc-Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units). This source is a Major Title V source. The source is subject to National Emissions Standards for Hazardous Air Pollutants (NESHAP's) 40 CFR 63 Subpart GG: National Emission Standards for Aerospace Manufacturing and Rework Facilities, but this consolidation is not subject to this NESHAP's. The existing permitted boiler emissions are as follows: 10.28 Tons Per Year (TPY) of PM10, 19.96 TPY of SO2, 135.26 TPY of NOX, 113.62 TPY of CO and 7.44 TPY of VOC. There is no increase in emissions or equipment being modified associated with this modification. This source is going out for a 30-day public comment period.***

The Notice of Intent (NOI) for the above-referenced project has been evaluated and has been found to be consistent with the requirements of the Utah Administrative Code Rule 307 (UAC R307). Air pollution producing sources and/or their air control facilities may not be constructed, installed, established, or modified prior to the issuance of an Approval Order (AO) by the Executive Secretary of the Utah Air Quality Board.

A 30-day public comment period will be held in accordance with UAC R307-401-7. A notice of intent to approve will be published in the Salt Lake Tribune and Deseret News on September 22, 2006. During the public comment period the proposal and the evaluation of its impact on air quality will be available for both you and the public to review and comment. If anyone so requests a public hearing it will be held in accordance with UAC R307-401-7. The hearing will be held as close as practicable to the location of the source. Any comments received during the public comment period and the hearing will be evaluated.

Please review the proposed AO conditions during this period and make any comments you may have. The proposed conditions of the AO may be changed as a result of the comments received. Unless changed, the AO will be based upon the following conditions:

#### **General Conditions:**

This air quality Approval Order (AO) authorizes the project with the following conditions and failure to comply with any of the conditions may constitute a violation of this order. This AO is issued to, and applies to the following:

#### **Name of Permittee:**

Hill Air Force Base  
OO-ALC/EM  
7274 Wardleigh Road  
Hill Air Force Base, Utah 84056-5137

#### **Permitted Location:**

Main Base, Little Mountain  
OO-ALC/EM  
7274 Wardleigh Road  
Hill Air Force Base, Utah 84056-5137

**UTM Coordinates :** Main Base (4,553,010 meters Northing, 418,622 meters Easting) Zone 12, Datum 1927

**SIC Code:** 9711

### **Section I: GENERAL PROVISIONS**

- I.A. All definitions, terms, abbreviations, and references used in this AO conform to those used in the Utah Administrative Code (UAC) Rule 307 (R307) and Title 40 of the Code of Federal Regulations (40 CFR). Unless noted otherwise, references cited in these AO conditions refer to those rules.
- I.B. The limits set forth in this AO shall not be exceeded without prior approval in accordance with R307-401.
- I.C. Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved in accordance with R307-401.
- I.D. All records referenced in this AO or in applicable NSPS and/or NESHAP and/or MACT standards, which are required to be kept by the owner/operator, shall be made available to the Executive Secretary or Executive Secretary's representative upon request. Records shall be kept for the following minimum periods:
- |                      |  |
|----------------------|--|
| Emission inventories | Five years from the due date of each emission statement or until the next inventory is due, whichever is longer. |
| All other records    | Five years   |
- I.E. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this Approval Order, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on the information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on the equipment authorized by this AO shall be recorded.
- I.F. The owner/operator shall comply with R307-150, UAC. This rule addresses emission inventory reporting requirements.
- I.G. The owner/operator shall comply with R307-107. General Requirements: Unavoidable Breakdowns.
- I.H. This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations.
- I.I. This AO shall replace the following AO; Modification to the DAQE-286-02, Consolidated Boiler permit, DAQE-AN0121152-04

## **Section II: SPECIAL PROVISIONS**

II.A The approved equipment listed in tables 1 and 2 are subject to the heat input limitation in condition II.C.2.

### **Boiler Categories**

#### **II.B.1 Boilers subject to New Source Performance Standards Dc 40 CFR 60.40c**

The boilers listed in Table 1 have a capacity greater than 10 million BTU per hour and were constructed after June 9, 1989, are subject to New Source Performance Standards 40 CFR 60.40c (Subpart Dc-Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units) and to the limitation in section II.C.2 of this permit.

**Table 1. Boilers subject to New Source Performance Standards Dc 40 CFR 60.40c**

<b>Building Location</b>	<b>Capacity(MMBTU/hr)</b>	<b>AQUIS #</b>
238	20.7	34386
260(#8)	87.5_	3507
260(#9)	87.5_	3508
916	16.74	3576
1590(#1)	29.0	3415
1590(#2)	29.0	3416
1624(#1)	16.7	3527
1703(#1)	10.5	3419
1703(#2)	10.5	3426
1703(#3)	25.0	34388
2104(#2)	10.46	3536
2203(#2)	10.5	3538
1205 Ltl.Mt.	10.5	34981

\_ Boilers that are subject to the testing section of this permit.

**II.B.2 Boilers not subject to New Source Performance Standards Dc 40 CFR 60.40c**

The boilers listed in Table 2 either have a capacity less than 10 million BTU per hour or were installed before June 9, 1989 and are not subject to New Source Performance Standards 40 CFR 60.40c (Subpart Dc-Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units).

**Table 2. Boilers not subject to New Source Performance Standards Dc 40 CFR 60.40c**

Building Location	Capacity(MMBTU/hr)	AQUIS #
260(#2)	80.0_	3501
260(#3)	80.0_	3502
519(#3)	10.0	38300
519(#4)	8.4	3512
519(#5)	8.4	3513
847	8.61	3541
891	1.27	3574
891	1.27	3575
891	1.27	3542
1286(#1)	60.0_	3519
1624(#2)	10.5	3526
1624(#1)	16.74	3527
1904(#1)	16.74	3530
1904(#2)	8.4	3531
2025(#1)	2.51	3532
2025(#2)	2.51	3533
2025(#3)	2.51	3534
2025(#4)	6.28	34390
2104(#2)	10.46	3536

2104(#1)	6.28	3535
2203	8.4	3537
1205 Ltl.Mt.	6.9	3518

\_ Boilers that are subject to the testing section of this permit.

### II.B.3 **Boilers Grandfathered from Utah Administrative Code and from NSPS**

The boilers listed in Table 3 have been installed before 1970 and are not subject to any unit specific requirements. Emissions inventory is required for all sources including grandfathered sources.

**Table 3. Grandfathered Boilers**

<b>Building Location</b>	<b>Capacity(MMBTU/hr)</b>	<b>AQUIS #</b>
3	0.72	3543
260(#4)	50.00	3503
260(#5)	50.00	3504
260(#6)	50.00	3505
260(#7)	50.00	3506
519(#1)	7.10	3510
519(#2)	7.10	3511
825(#1)	60.00	3514
825(#2)	60.00	3515
825(#3)	60.00	3516
860	0.25	3570
890	1.26	3573
1286(#2)	40.00	3520
1286(#3)	40.00	3521
1590(#3)	20.00	3524
1590(#4)	20.00	3525

## **Limitations**

### **II.C.1 Testing requirements for boilers with capacities of 50MMBTU per hour or greater**

Emissions of NO<sub>x</sub> shall be no greater than 0.09 lbs/hour-MMBTU.

### **II.C.2 Base Wide Limitations on heat input**

The boilers listed in tables 1 and 2 have are subject to the following base wide heat input limitation:

**2.76 x 10<sup>12</sup> BTU** per rolling 12-month period for Main Base and Little Mountain sites. The heat input shall be calculated using the following BTU rating for fuels: 123,000 BTU/gallon of JP8; 141,000 BTU/gallon of fuel oil #2; 137,000 BTU/gallon of diesel; 1020 BTU/scf of natural gas.

### **II.C.3 Limitation on Opacity**

Boilers restricted to natural gas only do not have opacity limit. Boilers operating on alternative fuels and boilers that have the capability of operating on alternative fuels shall not exceed a 20% opacity limitation.

### **II.C.4 Limitation on Used Oil Consumption**

Hill can operate the 25MMBTU per hour boiler in building 1703 on used oil as long as the oil meets Used Oil Regulation 40 CFR 266 Subpart E. Hill shall not exceed 100,000 gallons of used oil consumed by the boiler per rolling 12-month period.

### **II.C.5 Heat Input Limitation for Used Oil Boiler**

Hill shall include the heat input from the used oil-fired boiler in the base-wide heat input limitation set forth in condition II.D.1. Hill shall use the heating value of number 2 fuel oil (141,000 BTU/gal) when calculating the heat input from used oil boiler.

### **II.C.6 Limitation on Opacity for Used Oil Boiler**

Used oil boiler in building 1703 shall not exceed a 20% opacity limitation.

The Division of Air Quality is authorized to charge a fee for reimbursement of the actual costs incurred in the issuance of an AO. An invoice will follow upon issuance of the final Approval Order.

Sincerely,

Rusty Ruby, Manager  
New Source Review Section